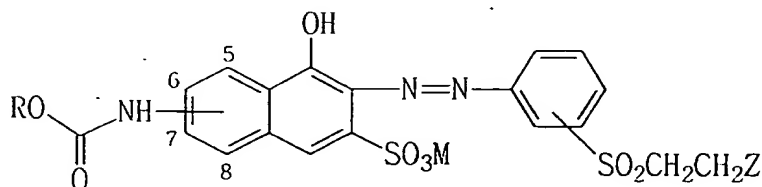


## CLAIMS

What is claimed is:

1. A reactive orange dye containing vinyl sulfone expressed in the following  
5 formula 1:

Formula 1



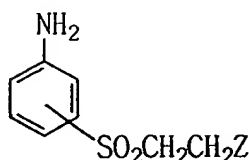
- 10 wherein, M is alkaline metal atom; Z is  $-O-SO_3M$  or  $OC(O)CH_3$ ; R is alkyl group having 1-4 of carbon atom; and a position of  $C_6$  or  $C_7$  is substituted with carbamate group.

2. A process for preparing a reactive orange dye containing vinyl sulfone  
15 expressed in the following formula 1, which comprises the steps of:

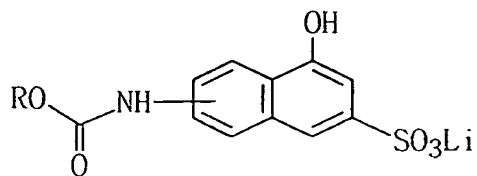
- (a) diazotizing aminophenyl- $\beta$ -ethylsulfone compound of formula 2;
- (b) condensing in such a manner that alkyl chloroformate is slowly added to neutralized solution of 6(7)-amino-4-hydroxy-2-naphthalenesulfonic acid to prepare 6(7)-alkoxycarbonylamino-4-hydroxy-2-naphthalenesulfonic  
20 acid expressed in the following formula (3) at 0-25°C with maintaining pH in the range of 3-6 by means of LiOH or  $Li_2CO_3$ ; and
- (c) coupling the reacting mixtures obtained in the above steps of (a) and (b) at 0-5°C with adding a base so as to adjust pH lower than 6.5.

Formula 2

25

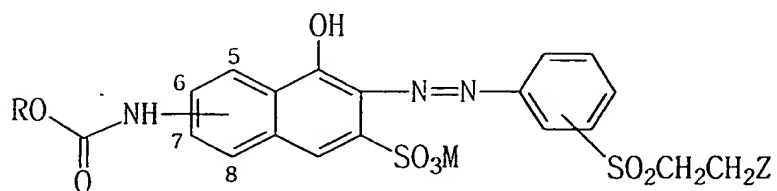


## Formula 3



5

## Formula 1



10 wherein, M is alkaline metal atom; Z is -O-SO<sub>3</sub>M or OC(O)CH<sub>3</sub>; R is alkyl group having 1-4 of carbon atom; and a position of C<sub>6</sub> or C<sub>7</sub> is substituted with carbamate group.